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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,933	03/05/2002	Holger Jahn	1891/50917	5283

23911 7590 05/13/2005

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EXAMINER

ROYAL, PAUL

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/087,933		JAHN, HOLGER	
	Examiner		Art Unit	
	Paul Royal		3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 8 and 11-23 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 01/24/05 has been entered.

Response to Arguments

2. Applicant's arguments filed 01/24/05 have been fully considered but they are not persuasive.

In general, applicant argues the prior art applied by the Examiner fails to teach the claimed invention.

Applicant argues, with respect to claims 8 and 16, that the claims recite a symmetric running profile that is laterally offset from the tire center is patentable of Minnebraker and Harms as applied.

The Examiner disagrees because Minnebraker teaches a wheelchair including, a wheelchair seat (38) for a wheelchair occupant, and a pair of wheels (130) disposed at lateral sides of the seat and being manually rotatable by the wheel chair occupant, wherein each wheel includes a rim (138) surrounded by a tire, each tire having a tire carcass (142) surrounded by a running profile, wherein said offset angle is between 9 degrees and 16 degrees, and wherein each wheel includes a driving ring (144) manually engageable by the wheelchair occupant to drive the wheel.

Applicant's further argues, admirably but not persuasively, in general, the prior art Harms teaches a tire for a "dune buggy" which would be unsuitable for a wheelchair tire application and the combination of Harms and Minnebraker is incompatible.

In response to applicant's argument that Harms is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Harms is clearly in the field of tires.

The Examiner, restates the Examiner's previous (see Office Action dated 07/23/04) position that tire technology and developments are applicable across a range of vehicles and one of ordinary skill in the art of tire profiles and tire applications would consider developments for tire applications ranging from wheel chairs to bicycles and motor vehicles in designing tire features such as tread patterns which displace water and tire sidewall structure because it is understood the structure and elements of the tire are most often scalable and interchangeable between applications/usage.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7, 11, 14, 15, 18, 19, 21, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minnebraker (4,351,540) in view of Harms (US 6,142,201).

Minnebraker teaches a wheelchair assembly comprising:

a wheelchair seat (38) for a wheelchair occupant, and a pair of wheels (130) disposed at lateral sides of the seat and being manually rotatable by the wheel chair occupant, wherein each wheel includes a rim (138) surrounded by a tire, each tire having a tire carcass (142) surrounded by a running profile,

wherein said offset angle is between 9 degrees and 16 degrees, and

wherein each wheel includes a driving ring (144) manually engageable by the wheelchair occupant to drive the wheel.

Minnebraker does not teach wherein the running profile of each of the tires is asymmetrically disposed with respect to a tire carcass center plane with portions of at least one of the running profile and carcass disposed laterally outward of a wheelchair in an inuse position being configured to be smooth.

Harms teaches a tire having a running profile which is asymmetrically disposed with respect to a tire carcass center plane (26, see Figure 3) with portions of at least one (32) of the running profile and carcass disposed laterally outward of a wheelchair in an inuse position being configured to be smooth. Such an asymmetric tread design helps steering, allowing for a larger profile tire surface inboard.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the wheelchair assembly and tire Minnebraker to include wherein the running profile of each of the tires is asymmetrically disposed with respect to a tire carcass center plane with portions of at least one of the running profile and carcass disposed laterally outward of a wheelchair in an inuse position being configured to be smooth, as taught by Harms, for better steering.

Note with respect to claims 22 and 23, where Minnebraker teaches the rear wheels may be cambered at an angle of about 0° to 10° per wheel to achieve the most desirable stability, it would require only routine skill in the art to center the ground contact area of the tire substantially aligned with the center of the asymmetric running profile to provide the desired stability.

Note, with respect to the claim limitation “configured to be smooth *so as to limit chafing of a wheel chair occupant's hands* when manually rotating a wheel with said tire mounted thereon”, emphasis added, the Examiner has given this limitation little patentable weight because the susceptibility of the chaffing of a wheel chair users hands depends, in large part, on the specific hands of the wheel chair user.

Additionally, the concept of “limit chaffing” is unclear. The application does not teach what is considered a limitation of chaffing of the wheel chair users hands. Applicant should distinguish the recited term “limit chafing” from inventions which do not limit chafing.

4. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minnebraker (4,351,540) in view of Harms (US 6,142,201) and Roberts (US 3,656,532).

Minnebraker teaches a wheelchair assembly comprising:

a wheelchair seat (38) for a wheelchair occupant, and a pair of wheels (130) disposed at lateral sides of the seat and being manually rotatable by the wheel chair occupant, wherein each wheel includes a rim (138) surrounded by a tire, each tire having a tire carcass (142) surrounded by a running profile,

wherein said offset angle is between 9 degrees and 16 degrees, and
wherein each wheel includes a driving ring (144) manually engageable by the
wheelchair occupant to drive the wheel.

Minnebraker does not teach a wheelchair assembly wherein the running profile of
each of the tires is asymmetrically disposed with respect to a tire carcass center plane
with portions of at least one of the running profile and carcass disposed laterally
outward of a wheelchair in an inuse position being configured to be smooth nor does
Minnebraker teach wherein the tire running profile is symmetrically configured and
arranged offset with respect to the center plane by a predetermined offset angle.

Harms teaches a tire having a running profile which is asymmetrically disposed
with respect to a tire carcass center plane (26, see Figure 3) wherein portions of at least
one (32) of the running profile and carcass is disposable laterally outward of a
wheelchair in an inuse position being configured to be smooth. Such an asymmetric
tread design helps steering, allowing for a larger profile tire surface inboard.

Roberts teaches an asymmetric tire (10) wherein portions of the running profile
(18) and carcass (17) are disposable laterally offset with respect to the tire center plane
by a predetermined offset angle, see column 1, line 32 to column 2, line 15, that
provides the user an increase in gripping surface area while maintaining the desired
camber alignment.

It would have been obvious to one of ordinary skill in the art at the time of the
invention to modify the wheelchair assembly of Minnebraker to include a tire having a
running profile which is asymmetrically disposed with respect to a tire carcass center

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plane wherein portions of at least one of the running profile and carcass is disposable laterally outward being configured to be smooth, as taught by Harms, to assist in vehicle steering and allow for a larger profile tire surface inboard and to modify the wheelchair assembly of Minebraker and Harms to include an asymmetric tire wherein portions of the running profile and carcass are disposable laterally offset with respect to the tire center plane by a predetermined offset angle, as taught by Roberts, which provides the user an increase in gripping surface area while maintaining the desired camber alignment.

Note, with respect to the claim limitation “configured to be smooth so as to *limit chafing of a wheel chair occupant’s hands* when manually rotating a wheel with said tire mounted thereon”, emphasis added, the Examiner has given this limitation little patentable weight because the susceptibility of the chaffing of a wheel chair users hands depends, in large part, on the specific hands of the wheel chair user.

Additionally, the concept of “limit chaffing” is unclear. The application does not teach what is considered a limitation of chaffing of the wheel chair users hands. Applicant should distinguish the recited term “limit chafing” from inventions which do not limit chafing.

5. Claims 12-13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minnebraker (4,351,540) in view of Harms (US 6,142,201) and French (US 3,930,527).

Minnebraker teaches a wheelchair assembly comprising:

a wheelchair seat (38) for a wheelchair occupant, and a pair of wheels (130) disposed at lateral sides of the seat and being manually rotatable by the wheel chair occupant, wherein each wheel includes a rim (138) surrounded by a tire, each tire having a tire carcass (142) surrounded by a running profile,

wherein said offset angle is between 9 degrees and 16 degrees, and

wherein each wheel includes a driving ring (144) manually engageable by the wheelchair occupant to drive the wheel.

Minnebraker does not teach wherein the running profile of each of the tires is asymmetrically disposed with respect to a tire carcass center plane with portions of at least one of the running profile and carcass disposed laterally outward of a wheelchair in an inuse position being configured to be smooth and a low friction coating on the portions configured to be smooth.

Harms teaches a tire having a running profile which is asymmetrically disposed with respect to a tire carcass center plane (26, see Figure 3) wherein portions of at least one of the running profile and carcass is disposable laterally outward. Such an asymmetric tread design helps steering, allowing for a larger profile tire surface inboard.

French teaches a tire and wheel assembly that includes a low friction coating on the tire sidewall portions configured to be smooth to reduce heat generation on the tire sidewall.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the wheelchair assembly and tire of *Minnebraker* to include wherein the running profile of each of the tires is asymmetrically disposed with respect to a tire

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carcass center plane with portions of at least one of the running profile and carcass disposed laterally outward, *as taught by Harms*, for better steering and to modify the wheelchair assembly of Minnebraker and Harms, to include a low friction coating on the tire sidewall portions configured to be smooth, *as taught by French*, to reduce heat generation on the tire sidewall.

Note, with respect to the claim limitation “configured to be smooth *so as to limit chafing of a wheel chair occupant’s hands* when manually rotating a wheel with said tire mounted thereon”, emphasis added, the Examiner has given this limitation little patentable weight because the susceptibility of the chaffing of a wheel chair users hands depends, in large part, on the specific hands of the wheel chair user.

Additionally, the concept of “limit chaffing” is unclear. The application does not teach what is considered a limitation of chaffing of the wheel chair users hands. Applicant should distinguish the recited term “limit chafing” from inventions which do not limit chafing.

Allowable Subject Matter

6. Claims 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

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For claims 9-10, the prior art does not show a wheelchair tire wherein the offset angle of the running profile corresponds to a wheel camber of a wheelchair.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Royal whose telephone number is 571-272-6652. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


P. Royal
5/4/05

Paul Royal
Examiner
Art Unit 3611


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